



Amalgam Separators Approved by King County

The following amalgam separators are approved by King County for discharge of dental wastewater to the King County sewer system. Dental practices that install an amalgam separator approved by King County's Industrial Waste Program, keep maintenance and disposal records, and follow Best Management Practices (BMPs) for amalgam do not need to apply for a wastewater discharge permit or sample their wastewater. Please visit the dental wastewater web page for up-to-date information: <http://dnr.metrokc.gov/wlr/indwaste/dentists.htm>.

King County evaluates amalgam separators at the request of the manufacturer. If a dental practice is considering an amalgam separator not on this list, please contact Bruce Tiffany (206-263-3011) or bruce.tiffany@metrokc.gov, to check on the status of that model.

Company	Phone	Model	Maximum Flow Rate From ISO-11143 Testing In mL/min or L/min ⁵
AB Dental Trends, Inc.	360-354-4722	Rasch 890 System	4 L/min
Air Techniques, Inc.	800-Air-Tech	Guardian Amalgam Collector (No.: A1010)	2.5 L/min
American Dental Accessories, Inc.	800-331-7993	ASDEX Amalgam Separator with: ASDEX Premium Filter (No.: AS-9)	250mL/min
		AD-1000	4 L/min
Bio-Sym Medical Corporation	800-947-7550	MERC II	2 L/min
Dental Recycling North America [DRNA]	800-360-1001	SRAB 99 ¹	NA
		BullfroHg (No.: BUI0)	750 mL/min
		MRU (Nos.: MRU10c & MRU100v)	750 mL/min
Hygenitek, Inc. – Canada Bio-Med Process – USA Distributor	866-494-3648	ARU-10	750 ml/min
	866-510-7082		
Maximum Separation Systems, Inc.	800-799-7147	MSS Model 1000	1 L/min
		MSS Model 2000	2.5 L/min
Metasys [Pure Water Development, L.L.C.]	877-METASYS	MST-1 ^{1, 2}	NA
		ECO II	2L/min
R&D Services	206-525-4995 or 800-816-4995	The Amalgam Collector, Design I ^{1, 3}	NA
		The Amalgam Collector, Design II ^{1, 4}	NA
		The Amalgam Collector, CH - Series (Nos.: CH9, CH12, CH15 ¹ and CH18 ¹)	NA
		The Amalgam Collector, CE - Series (Nos.: CE15 ¹ , CE18 and CE24)	NA
Rebec Environmental	425-745-4177 or 800-569-1088	RME 2000 Metals Collector (Systems: 400, 1000, 5000, 7000 & 9000)	1 L/min
Solmetex	508-393-5115 or 800-216-5505	Hg5	50 ml/min

1. This unit is no longer being marketed

2. Approved only for water-driven vacuum & chair-side location
3. Approved only for water-driven vacuum
4. Approved only for turbine "dry" vacuum
5. ISO – International Standards Organization maximum flow rate at which separator efficiency was tested and is reported as either milliliters per minute [mL/L]; liters per minute [L/min]; or not applicable [NA].

King County provides no guarantees or warranties for purchase, installation, operation, and maintenance of King County approved amalgam separators.

The purchase, installation, operation, and maintenance of a King County approved amalgam separator does not relieve the owner of meeting other applicable federal, state, or local codes, ordinances, regulations, or statutes.

International Standards Organization (ISO) Certification:

Beginning July 1, 2003, King County will only approve amalgam separators that have been certified as meeting or exceeding ISO-11143 as verified by an ISO-certified testing laboratory. Any amalgam separator manufacturer that has not previously initiated King County (formerly Metro) testing will need to test its amalgam separator by ISO-11143. All amalgam separators sampled and tested according to the King County protocols will remain on the King County list of approved separators and are approved for use in dental facilities tributary to the King County sewer system.

Choosing the right amalgam separator for a dental practice

The type of amalgam separator to choose depends on several factors: Does the practice want individual chair-side separators or a central unit that will handle all the chairs?

What type of vacuum pump services the office? Choose an amalgam separator that doesn't interfere with the practice's vacuum. Some amalgam separators are approved only for chair-side use or for use with a particular type of vacuum pump.

King County's list of approved amalgam separators notes whether there are King County restrictions on the use of each model. The practice's vendor should be able to recommend units that will best serve the office configuration.

If a practice is in a building that contains many dental offices, it should check with the building manager before installing the unit, to make sure it will be compatible with the central vacuum.

How much will the amalgam separator cost? Costs range from several hundred dollars to a few thousand dollars,

depending on whether the practice: leases the unit with required maintenance included in the fee; purchases the unit and contracts with a company to maintain it, or purchases the unit and maintains it. A practice should ask if the price includes installation or if the practice will have to arrange for it. There are also costs for disposing of sludge.

When comparing costs, consider costs of the unit, installation, maintenance, and waste disposal.

What maintenance is required? Ask whether the vendor provides regular maintenance for the unit or if it is the practice's choice. Questions include: How often does one need to dispose of accumulated waste sludge? Is the sludge collected in a canister that can be replaced or in one that must be emptied?

If the vendor maintains the unit, find out: who the vendor contracts with to haul the waste away; where the contractor sends it, and what waste documentation the vendor provides as part of the service fee.

Review the operation and maintenance manual for items one needs to keep track of while using the unit.

Choosing a vendor: Although practices may rely on others for maintenance and waste disposal, they are legally responsible for the waste until its final disposal. In choosing a vendor, practices should consider reliability as well as cost.

What documentation and other paperwork are provided? Manifests and receipts track dental practices' waste from site, to hauler, to the receiving facility. Vendors may help the practice prepare manifests and other papers, but practices should be careful to ensure their accuracy. While

small quantity generators do not need to manifest the waste shipped, manifests provide added protection.

How much will the services cost? The total cost of handling a practice's waste can include a number of fees: a waste profile or lab fee, a hauling charge, a disposal fee, and a container replacement charge. Practices should: ask vendors what they charge for each of these items; ask which charges are one-time and which are ongoing, and find out if there are any other fees.

For more information visit:

<http://dnr.metrokc.gov/wlr/indwaste/dentists.htm>

Maximum Flow rate From ISO-11143 testing:

The maximum flow rate that each amalgam separator unit is tested at is included on this list so dentists can determine which separators will work for their practice. Consider the maximum flow rate from your operatories each day and purchase a separator that will handle that flow. For example, if your vacuum pump manufacturer suggests that you flush each operatory's vacuum line with 1 liter of line cleaner each day and you choose an amalgam separator that was tested at a maximum flow rate of 100 milliliters/minute, you would need to take 10 minutes to flush each liter through the vacuum line to remain within the tested flow rate. (1 liter equals 1000 milliliters; so 1000 milliliters divided by 100 milliliters/minute equals 10 minutes.)



King County

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